



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/709,558

05/13/2004

Michael Evan Marcus

3557

36444 7590
MICHAEL MARCUS
170 ACORN LANE
ELLIJAY, GA 30540

09/11/2007

EXAMINER

JOYCE, WILLIAM C

ART UNIT

PAPER NUMBER

3682

MAIL DATE

DELIVERY MODE

09/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/709,558	Applicant(s) MARCUS, MICHAEL EVAN	
	Examiner William C. Joyce	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

This is the First Office Action in response to the above identified patent application filed on May 13, 2004.

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it should not exceed 150 words and it must not include implied phrases such as "An invention consisting."

Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claim 6 is objected to under 37 CFR 1.75(c) as being in improper form because any dependent claim which refers to more than one other claim ("multiple dependent claim ") shall refer to such other claims in the alternative only. See MPEP § 608.01(n). Accordingly, claim 6 has not been further treated on the merits.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In claim 1, line 5, the limitation “in precise method” is not fully understood.

Does applicant intend to recite a method limitation? Appropriate correction is required.

b. In claim 2, and throughout the claims, the limitation “design means” is not clear and fails to structurally define the device. The desired patent protection cannot be determined. For example, the limitation “design means for easy attachment to and removal from the implement to which said hub assembly is attached” (claim 3) fails to define the claimed invention in terms of its structure. In addition, the use of the term “means” throughout the claims is unclear as to whether applicant intends to invoke 35 USC 112, sixth paragraph.

c. In claim 5, the limitation “said worm gear possibly being supported by means other than that described in claim 1” fails to particularly point out the features of the desired patent protection.

d. In claim 8, claim 11, and elsewhere, it is unclear as to whether applicant intends to claim the subcombination or a worm assembly of the combination of a worm assembly and an implement.

e. The limitations of claim 8, and elsewhere are not fully understood because of applicant's references to limitation found in previous claims. For example, the limitations "said point of contact defined in claim 5" and "said worm gear defined in claim 5" are unclear. Does applicant intend claim 8 to depend from claim 1 or claim 5? In a second example, does claim 10 depend from claim 1, claim 5, or claim 6. The dependent claims must not refer to limitations found in other dependent claims. Each claim must clearly define the metes and bounds of the desired patent protection.

f. Claim 8, the limitation "the axis of said motor and the axis of said worm are located in a plane that is perpendicular to the axis of said worm and said point of contact defined in claim 5" is not fully understood. The limitation "said point of contact" lacks proper antecedent basis.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-11, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (USP 5,475,930) in view of Richmond (USP 4,159,599).

Kimura teaches a worm drive system, said worm drive system comprising a plate assembly (15) supporting a hub assembly (1) which includes a worm gear (17), a worm

Art Unit: 3682

assembly which features a pivot point (36) for said worm assembly and includes a worm (20) supported by precision bearings, and a motor assembly which includes a motor (8).

Kimura does not teach the hub assembly having a clutch, however it was well known in the art to provide a clutch in a hub assembly for connecting/ disconnecting a driven member from the worm gear drive. For example, the prior art to Richmond teaches a clutch (100,102...) for connecting a worm gear drive to a driven member. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the hub assembly of Kimura with a clutch, as taught by Richmond, motivation being to provide means for selectively coupling the drive gear to the driven member.

The device of Kimura includes means to prevent warpage of the worm gear during operation of the clutch, means for easy attachment of the implement, the spring (34) providing a constant radial preload on the bearings, the motor being connected to the worm so as not to affect the alignment of the worm relative to the worm gear.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the worm drive of US Patent 3839934, 4040307, 4541294, 4827790, 6076266, 6563636, and 6643940.

Art Unit: 3682

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (571) 272-7107. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William C. Joyce 9/3/07